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Cooperative
**ECONOMIC INSECT
REPORT**

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PLANT PROTECTION DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PROTECTION DIVISION

ECONOMIC INSECT SURVEY AND DETECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

All reports and inquiries pertaining to this release, including the mailing list, should be sent to:

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Plant Protection Division
Agricultural Research Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782**

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

SPOTTED ALFALFA APHID heavy on forage in limited area of Arizona. (p. 873).

PEA APHID heavy on alfalfa in southeast Missouri. (p. 873).

GREEN PEACH APHID building up on sugarbeets and first colonies of season on lettuce in Arizona. (p. 874).

Detection

New State records include a GRASSHOPPER from Nevada, a PYRRHOCORID BUG from Tennessee (p. 873), an EARWIG from Nevada (p. 874), and an ADELGID from Pennsylvania (p. 875).

For new county and island records see page 877.

Special Reports

● Estimated Losses and Production Costs Attributed to Insects and Related Arthropods in 17 States for 1968. (pp. 878-893).

Reports in this issue are for week ending December 5 unless otherwise indicated.

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WEATHER BUREAU'S 30-DAY OUTLOOK

DECEMBER 1969

The Weather Bureau's 30-day outlook for December is for temperatures to average below seasonal normals in the eastern third of the Nation as well as the southern Plains, California and northern and southern portions of the plateau region. Above normal temperatures are indicated for the northern and central Plains while near normal temperatures are in prospect in unspecified areas. Precipitation is expected to exceed normal over the southern plateau, the southern Rockies and the west gulf coast region. Subnormal totals are in prospect elsewhere west of the Divide and also over the upper and middle Mississippi Valley, the Ohio Valley, and the Middle and North Atlantic States. Elsewhere near normal precipitation is in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price \$5.00 a year.

For weather of the week see page 894.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

GREENBUG (*Schizaphis graminum*) - ARKANSAS - Light, ranged 1-3 per linear foot, in wheat in northwest areas. (Boyer). OKLAHOMA - Range per linear foot by county as follows: Jackson 10-100; Greer 0-20; Kiowa 5-60; Beckham 10-50; Washita 5-50; Custer 5-100; Caddo 20-500; Grady 0-200; Noble 4-5; and Garfield moderate. (Okla. Coop. Sur.). TEXAS - Counts ranged 1-200 per row foot of wheat in 29 panhandle counties November 18 to December 3. Highest counts in Hall and Motley Counties. (Daniels).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) - ARIZONA - Averaged 2,000 per 100 sweeps in 3 adjoining forage fields in northeast Mesa area of Maricopa County. (Ariz. Coop. Sur.). ARKANSAS - Surveys negative in northwest areas. (Boyer).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (*Ostrinia nubilalis*) - SOUTH CAROLINA - One cornfield 50+ percent lodged in Richland County. (Thomas, Dec. 3).

A FLEAHOPPER (*Spanogonicus albofasciatus*) - ARIZONA - Averaged 200 per 100 sweeps of 10-inch barley in western Pinal and eastern Maricopa Counties. (Ariz. Coop. Sur.).

SMALL GRAINS

AN APHID (*Rhopalosiphum padi*) - OKLAHOMA - Ranged 5-50 per linear foot in wheat in Caddo County. (Okla. Coop. Sur.).

TURF, PASTURES, RANGELAND

A GRASSHOPPER (*Dissosteira pictipennis*) - NEVADA - Specimens collected at Willow Spring, Fort Sage Mountain in Washoe County September 23, 1969. Collected and determined by R.C. Bechtel, confirmed by D.C. Rentz. This is a new State record. (Bechtel).

A MARCH FLY (*Dilophus orbatus*) - CALIFORNIA - Adults infested lawns at Stockton, San Joaquin County, and at Hayward, Alameda County. Heavy in golf course at Bakersfield, Kern County. (Cal. Coop. Rpt.).

FORAGE LEGUMES

PEA APHID (*Acyrtosiphon pisum*) - NEW MEXICO - Light, ranged 8-12 per square foot, in alfalfa in Chaves County. (Mathews). MISSOURI - Ranged 35 per 10 sweeps in south-central area to 1,000+ in extreme southeast area on alfalfa. (Munson, Nov. 29).

ALFALFA CATERPILLAR (*Colias eurytheme*) - ARIZONA - Decreased. Larvae (one-third diseased) averaged 90 per 100 sweeps of alfalfa in Salt River Valley, Maricopa County. (Ariz. Coop. Sur.).

LYGUS BUGS (*Lygus* spp.) - ARIZONA - Adults per 100 sweeps of alfalfa averaged 40 in Salt River Valley, Maricopa County, and 20 at Yuma, Yuma County. (Ariz. Coop. Sur.).

THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) - MISSOURI - Decreased. Ranged 4-15 per 10 sweeps on alfalfa, discolored and girdled plants in 5 fields in southeast area. (Munson, Nov. 29).

COTTON

A PYRRHOCORID BUG (*Largus succinctus*) - TENNESSEE - Specimens collected on cotton in area of State Highways 100 and 18 in Hardeman County by J.H. Locke, July 26, 1969. Determination by J.L. Herring. This is a new State record. (Gordon).

SUGARBEETS

GREEN PEACH APHID (Myzus persicae) - ARIZONA - Building up on young sugarbeets in some fields. Center leaves of plants completely encrusted on back sides in one field at Queen Creek in Maricopa County. (Ariz. Coop. Sur.).

GENERAL VEGETABLES

GREEN PEACH APHID (Myzus persicae) - CALIFORNIA - Medium and general in 160 acres of sweetpotatoes at Lamont, Kern County, and on 5 acres of eggplant at Home Gardens, Riverside County. (Cal. Coop. Rpt.). ARIZONA - First colonies of season reported on lettuce at Yuma, Yuma County. (Ariz. Coop. Sur.). MARYLAND - Light, ranged 5-10 per square yard on 200 acres of spinach near Vienna, Dorchester County. (U. Md., Ent. Dept.).

MORNING-GLORY LEAF MINER (Bedellia somnulentella) - CALIFORNIA - Larvae and pupae medium on sweetpotatoes at Lamont, Kern County. (Cal. Coop. Rpt.).

AN EARWIG (Labidura riparia) - NEVADA - Specimen collected from soil in garden at Las Vegas, Clark County, by D.F. Zoller, September 29, 1969. Determined by R.C. Bechtel. This is a new State record. (Bechtel).

DECIDUOUS FRUITS AND NUTS

PEACH TREE BORER (Sanninoidea exitiosa) - ALABAMA - Larvae damaged about 50 percent of peach trees in 12-acre commercial orchard near Hartford, Geneva County. (Bagby et al.).

A COREID BUG (Leptoglossus zonatus) - CALIFORNIA - Light on pistachio nuts at Brawley, Imperial County. Elongate scars on outer shells observed. (Cal. Coop. Rpt.).

CITRUS

Citrus Insect Situation in Florida - End of November - CITRUS RUST MITE (Phyllocoptura oleivora) infested 81 (norm 68) percent of groves; economic in 52 (norm 47) percent. Population in strongest downward trend in 3 months and will continue to decrease. Still above normal and in high range. Highest districts north, south, west, and central. CITRUS RED MITE (Panonychus citri) infested 41 (norm 32) percent of groves; economic in 8 (norm 9) percent. Slightly above normal but still in low range. Little change expected. Highest district west. Few heavy populations will develop. TEXAS CITRUS MITE (Eutetranychus banksi) infested 27 (norm 30) percent of groves; economic in 9 (norm 14) percent. Less numerous than normal. Expected to remain at current low level. Highest district central. GLOVER SCALE (Lepidosaphes gloverii) infested 66 (norm 66) percent of groves; economic in 6 (norm 12) percent. PURPLE SCALE (L. beckii) infested 62 (norm 64) percent of groves; economic in 5 (norm 6) percent. These scales expected to continue at near normal, light to moderate infestations in all districts. CHAFF SCALE (Parlatoria pergandii) infested 45 (norm 46) percent of groves; economic in 2 (norm 4) percent. Population will continue near normal and low in all districts. BLACK SCALE (Saissetia oleae) infested 54 (norm 34) percent of groves; economic in 21 (norm 11) percent. Population decreasing but still at record high for November. Expected to drop into low range but will be of little importance until spring. Highest districts east, central, and west. YELLOW SCALE (Aonidiella citrina) infested 61 (norm 57) percent of groves; economic in 6 (norm 8) percent. Expected to continue at current normal and moderate level. Highest district north. AN ARMORED SCALE (Unaspis citri) infested 23 percent of groves; moderate to heavy in 7 percent. Recently intensified in some groves and diminished in others. Statewide population remains low but higher than in prior months. WHITEFLIES infested 75 (norm 62) percent of groves; economic in 14 (norm 10) percent. Population decreased and expected to continue downward. Still above normal and highest record for November. (W.A. Simanton, (Citrus Expt. Sta., Lake Alfred)).

ORNAMENTALS

TEA SCALE (Fiorinia theae) - FLORIDA - All¹ instars heavy on 20 Camellia japonica plants in nursery at Jacksonville, Duval County, November 24 (King), and 149 camellias and 200 Ilex cornuta at Haines City, Polk County, November 11 (McLeod). Control measures requested. (Fla. Coop. Sur.).

BROWN SOFT SCALE (Coccus hesperidum) - CALIFORNIA - Nymphs and adults medium on Ficus sp. (fig) nursery stock in Lemon Grove, San Diego County. (Cal. Coop. Rpt.).

FOREST AND SHADE TREES

AN ADELGID (Adelges tsugae) - PENNSYLVANIA - Collected from eastern hemlock (Tsuga canadensis) in Montgomery County near Philadelphia on October 30, 1969, by R.J. Gouger. Determined by L.M. Russell. This is a new State record. (Gouger). Specimens collected from hemlock April 25, 1951, in Richmond, Virginia, were the first record of this adelgid in the East. (PPD).

AN AEGERIID MOTH (Paranthrene robiniae) - NEVADA - Larvae of this species and Agilus sp. (a flatheaded wood borer) killed or heavily damaged numerous young poplars in Sun Valley, Washoe County. (Adams, Bechtel).

AN OLETHREUTID MOTH (Laspeyresia cupressana) - CALIFORNIA - Larvae heavy in trunks of incense-cedar trees at Susanville, Lassen County. (Cal. Coop. Rpt.).

CALIFORNIA FIVE-SPINED IPS (Ips confusus) - CALIFORNIA - Damaged 15 ponderosa and sugar pine trees on 15 acres at Anderson Ridge, Colusa County, in Mendocino National Forest. (Cal. Coop. Rpt.).

MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - No cases reported in U.S. November 30 to December 6. Total of 193 laboratory-confirmed cases reported in portion of Barrier Zone in Republic of Mexico November 23-29 as follows: Sonora 84, Chihuahua 68, Coahuila 8, Nuevo Leon 6, Tamaulipas 27. Total of 21 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 5,468,000; Mexico 124,540,000. (Anim. Health Div.).

MOSQUITOES - ARIZONA - Culex tarsalis and C. pipiens quinquefasciatus (southern house mosquito) breeding in Weldon septic tanks, and increasing in city of Yuma and at Yuma Proving Grounds. Anopheles sp., Psorophora sp., P. confinnis, and Culex sp. troublesome near Colorado River. Aedes vexans and Culiseta sp. building up in Bermuda grass fields in southern Gila Valley, Yuma County. (Ariz. Coop. Sur.).

BROWN RECLUSE SPIDER (Loxosceles reclusa) - TENNESSEE - Specimens collected in small outhouse adjacent to residence near Manchester, Coffee County, September 1. Determined by W.B. Peck. This is a new county record. (Gunn).

HOUSEHOLDS AND STRUCTURES

PACIFIC DAMPWOOD TERMITE (Zootermopsis angusticollis) - ARKANSAS - Specimens collected in Independence County by L.O. Ashlock on September 26, 1969, from lumber shipped from west coast. Determined by E.P. Rouse and confirmed by D.R. Smith. This species native to west coast and not likely to be found except in similar cases. (Boyer).

STORED PRODUCTS

POTATO TUBERWORM (Phthorimaea operculella) - MICHIGAN - Scattered and light throughout Monroe County potato storage. (Janes, Dec. 1). MARYLAND - Heavy in several bushels of potatoes stored in home near Leonardtown, St. Marys County. (U. Md., Ent. Dept.).

INDIAN-MEAL MOTH (Plodia interpunctella) - VIRGINIA - Damaged part of 400 hams in curing room in Caroline County. (Eagar, Allen, Nov. 25).

BENEFICIAL INSECTS

HONEY BEE (Apis mellifera) - ARIZONA - Inspected 215 apiaries containing 18,375 colonies during September, October, and November. American foulbrood in 262 colonies, 11,146 colonies dead. Dead colonies normally average 5 percent in late summer and again in fall. (Ariz. Coop. Sur.).

DAMSEL BUGS (Nabis spp.) - OKLAHOMA - Light in Jackson County wheat. Averaged about 1 per 10 linear feet. (Okla. Coop. Sur.).

A FLOWER BUG (Orius tristicolor) - UTAH - Adults numerous in Chrysothamnus duff in Curlew Valley of Box Elder County. (Knowlton, Dec. 2).

LACEWINGS (Chrysopa spp.) - ARIZONA - Averaged 60 per 100 sweeps of alfalfa in Maricopa County. Heavy egg laying and larval activity on deciduous fruit trees infested with aphids in Queen Creek area of Maricopa County. (Ariz. Coop. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Inspected 36,398 trees in Tamaulipas; total of 2,288 trees infested in municipios Guemez and Victoria. In Nuevo Leon inspected 37,322 trees in 5 municipios; total of 1,010 trees infested. New infestations of 337 trees found in municipios Montemorelos, Hualhuises, and Linares. Inspections in Matamoros, Nuevo Laredo, Sabinas Hidalgo, and in 3 municipios in Baja California and Sonora negative. (PPD Mex. Reg., Oct.).

MEXICAN FRUIT FLY (Anastrepha ludens) - MEXICO - In Tijuana, Baja California, total of 19,448 sterile flies recaptured; 12 native flies trapped this calendar year. At La Paz, 18 collections of 25 flies determined Anastrepha spatulata. Larval inspections negative. (PPD Mex. Reg., Oct.):

PINK BOLLWORM (Pectinophora gossypiella) - NEVADA - Collected 81 native male and 3 female (2 gravid) moths in hexalure traps and 36 larvae from bolls in Moapa Valley, Clark County, from October 25 to November 23. Collected 7 males and 2 females in hexalure traps in Pahrump Valley, Nye County, on November 4 and November 26 respectively. (Nev. Coop. Rpt.). ARIZONA - Top crop infestations heavy in many long staple cotton fields in Salt River Valley, Maricopa County. (Ariz. Coop. Sur.). NEW MEXICO - One adult trapped in 25 hexalure traps in southern Eddy County. Boll counts reveal 52-100 percent live larvae in 5 test fields in same area. (Mathews). OKLAHOMA - Lint cleaner inspections made in 33 counties during November; positive in 32. Results show general population increase; ranged 1-40 per lint cleaner. Higher counts in central areas. (Okla. Coop. Sur.). FLORIDA - Sterile moth releases increased in wild cotton growing areas of southern counties. Total moths released March 15 through November 30 was 1,666,000. (PPD). MEXICO - Total of 4,639 moths recovered at Mexicali, Baja California, and San Luis, Sonora. Recovered 9,350 larvae from gin trash at Caborca, 1,280 larvae from gin trash at Hermosillo, Sonora; a coastal cotton field had 30 percent green boll infestation. (PPD Mex. Reg., Oct.).

WHITE-FRINGED BEETLES (Graphognathus spp.) - TENNESSEE - Total of 17 specimens taken from one square-foot sample of soybean field that had shown damage in Lawrence County in October. (Gordon). NORTH CAROLINA - Adults of G. leucoloma fecundus collected along roadside of State Highway 58 near Kuhn, Carteret County, by P.J. Lockerman November 11. Determined by V.H. Owens, confirmed by R.E. Warner. This is a new county record. (PPD).

HAWAII INSECT REPORT

Turf, Pasture - A BILLBUG (Sphenophorus venatus vestitus) increased in pastures and golf courses throughout Maui. No damage noted. (Miyahira).

General Vegetables - Larvae of SWEETPOTATO VINE BORER (Omphis anastomosalis) medium in small commercial planting of sweetpotatoes in Waimanalo, Oahu; trace at Waiahole. (Funasaki).

Fruits - Larvae of LARGE MANGO TIP BORER (Bombotelia jocosatrix) heavy on terminal leaves of young mango, up to 6 per leaf, in Aiea and Honolulu, Oahu. (Suzukawa, Shiroma). BLACK CITRUS APHID (Toxoptera aurantii) medium to heavy on terminal leaves of backyard citrus at Kahaluu and Kaneohe, Oahu. (Funasaki). Larvae of a NOCTUID MOTH (Phlegetonia delatrix) medium on young leaves of mountain-apple, up to 3 larvae per leaf, in several yards at Kaneohe and Nuuanu, Oahu. Some trees heavily defoliated. (Funasaki).

Ornamentals - Heavy feeding of an adult VAGRANT GRASSHOPPER (Schistocerca vaga) noted on leaf of potted autograph tree in Honolulu, Oahu. (Kajiwara).

Beneficial Insects - Moderate numbers of adults of a PTEROMALID WASP (Halticoptera patellana) emerged from bean fly pupae collected from yardlongbeans at Waikapu, Maui. This is a new island record. Commonly bred from bean fly pupae on Oahu. Also recorded from Kauai and Hawaii. (Miyahira, Ah Sam). Adults of a SCIOMYZID FLY (Sepedon sauteri) heavy in taro "patches" at Waihee, Maui. This fly is a predator of LIVERFLUKE SNAIL (Lymnaea ollula) which is also heavy in taro at same location. (Miyahira).

Miscellaneous pests - Heavy rains in November activated GIANT AFRICAN SNAIL (Achatina fulica) in localized infested areas on Kauai. At Poipu 631 snails destroyed during month, 19 at Wahiawa, none at Nawiliwili. (Sugawa).

DETECTION

New State Records - An ADELGID (Adelges tsugae) PENNSYLVANIA - Montgomery County (p. 875). An EARWIG (Labidura riparia) NEVADA - Clark County (p. 874). A GRASSHOPPER (Dissosteira pictipennis) NEVADA - Washoe County (p. 873). A PYRRHOCORID BUG (Largus succinctus) TENNESSEE - Hardeman County (p. 873).

New County and Island Records - BROWN RECLUSE SPIDER (Loxosceles reclusa) TENNESSEE - Coffee (p. 875). A PTEROMALID WASP (Halticoptera patellana) HAWAII - Maui (p. 877). A WHITE-FRINGED BEETLE (Graphognathus leucoloma fecundus) NORTH CAROLINA - Carteret (p. 877).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville, BL, 11/26-12/4 - Armyworm (Pseudaletia unipuncta) 1, black cutworm (Agrotis ipsilon) 1, granulate cutworm (Feltia subterranea) 3, yellow-striped armyworm (Prodenia ornithogalli) 1.

CORRECTIONS

CEIR 19(2):20 - A WEEVIL (Caulophilus latinasus) should be A WEEVIL (Caulophilus oryzae).

COOPERATIVE ECONOMIC INSECT REPORT

ESTIMATED LOSSES AND PRODUCTION COST ATTRIBUTED TO

INSECTS AND RELATED ARTHROPODS - 1968

Introduction

Prior to 1966 insect loss estimates were published in the Cooperative Economic Insect Report as individual reports. An attempt has been made for the fourth year to condense loss estimates from various States into a single report. This gives a more meaningful and better overall picture of the crop losses. The data have been compiled from the crop loss estimates submitted from 17 States. The entomologists submitting the 1968 estimates are listed below.

H.F. McQueen	Alabama
J.E. May	Arizona
W.P. Boyer	Arkansas
F.W. Mead	Florida
G.Y. Funasaki	Hawaii
S.M. Sturgeon	Illinois
J.H. Simpson	Kansas
J.L. Hellman	Maryland
R.G. Flaskerd	Minnesota
D.L. Keith	Nebraska
W.J. Brandvik	North Dakota
D.C. Arnold	Oklahoma
P.A. Jones	South Dakota
L.R. Green	Texas
W.A. Allen	Virginia
M.S. Conrad	Wisconsin
A.E. Parshall	Wyoming

Legend for pest abbreviations appears at end of loss tables.

Separates of this report are available from the Economic Insect Survey and Detection Staff.

U.S. Dept. Agr.
Coop. Econ. Ins. Rpt.
19(4):878-893, 1969

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
CORN (Grain)											
Alabama		SwCB, CLA, CE, FA, ECB, Ww, CR, LCB, SB, SuB, MB, SCB	688.00	3.20	3.71	658.00	2,441.18	1.50	30.00	45.00	2,486.18
Arizona		A, BA, CE, CFB, LCB, PB, SwCB, CR, StB	17.00	3.20	5.30*	2.00	10.60	6.00	15.00	90.00	100.60
Illinois		CLA	10,130.00	8.90	9.43	3,396.64	3,598.91	2.50	368.36	920.89	4,519.80
		CR (Adults)	"	8.90	9.43	84.53	89.57	3.00	30.50	91.51	181.07
		CFB	"	7.10	7.53	38.12	287.04	2.50	41.88	104.70	391.74
		Aw	"	-	-	-	-	2.50	3.40	8.50	8.50
		SI	"	7.10	7.55	1,538.13	11,612.89	3.25	6,261.87	20,351.07	31,963.96
		Gh	"	-	-	-	-	2.50	3.68	9.21	9.21
		ECB	"	4.45	4.71	1,393.22	6,562.07	3.00	126.28	378.84	6,940.91
Kansas		Cws	"	11.57	12.26	16.08	197.19	2.50	33.96	84.79	281.98
		CR	1,134.00	12.00	12.48	500.00	894.40	2.50	600.00	1,500.00	2,394.40
		ECB	"	5.18	5.39	340.11	1,832.23	2.50	44.30	110.75	1,942.98
		CE	"	4.50	4.68	222.00	1,038.96	2.25	18.00	40.50	1,079.46
Maryland		Aw, A, Cws, SW, ECB, FA, CE	484.00	6.60	7.13	122.00	869.86	5.00	8.00	40.00	909.86
Minnesota		SI, CR, Ww, Cws, WG	4,449.00	1.62	1.78	1,245.00	1,495.26	2.75	1,335.00	3,671.25	5,887.35
Nebraska		CR, ECB, CE, SCB, Cws, SB, Aws, FA, M, CLA, SCM, WBC, WG	4,149.00	5.10	5.61	-	-	2.60	3,844.00	9,994.40	19,290.40
South Dakota		CR, ECB, Gh, Ww	3,167.00	5.50	5.83	593.81	3,461.92	5.00	1,781.44	8,907.19	12,369.11
Virginia		Aw, Cws, SW, S	450.00	6.90	7.93	60.00	475.80	2.50	30.00	75.00	550.80
Wisconsin		CR, SI, ECB	1,754.00	-	-	-	-	1.35	1,317.52	1,778.65	1,778.65
Wyoming		CR, M, CLA	20.00	3.15	3.69	1.31	4.82	3.25	1.11	3.59	8.41
						Subtotal	29,675.71			46,605.84	93,095.38

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
CORN (Silage)											
Wyoming	CR, M, CLA		31.00	Tons 0.42	0.29	3.07	8.98	3.00	1.18	3.53	4.42
						Subtotal	8.98			3.53	4.42
SWEET CORN											
Alabama	CE, StB, FA, Ww, CR, CLA		3.20	-	-	-	-	30.00	3.20	96.00	106.08**
Illinois	CR, ECB		6.00	3.75	8.74	0.03	2.62	12.00	5.70	68.40	71.02
Minnesota	ECB, CE, CR		125.70	-	-	-	-	3.50	148.51#	519.78	519.78
Wisconsin	ECB, CE		127.40	3.46	79.00*	22.20	1,753.80	12.00	105.20	1,262.40	3,016.20
						Subtotal	1,756.42			1,946.58	3,713.08
POPCORN											
Nebraska	ECB, CE, SCB, Cws, M, Gh, Ww, CLA, SCM, SB, Aw, FA, WG, WBC		23.00	Lbs.	7.25	5.52	40.02	2.65	12.88	34.13	74.15
						Subtotal	40.02			34.13	74.15
SORGHUM (Grain)											
Arizona	A, BA, CE, FB, LCB, LB, SM, StB, SwCB, Wf, Cp		231.00	Bu.	5.00*	50.00	233.00	4.00	150.00	600.00	850.00
Kansas	Gb		3,475.00	18.00	15.84	855.00	1,354.20	2.00	595.00	1,190.00	14,733.20
Nebraska	CLA, Cws, Gh, Ww, PB, RA, CB, SCM, SCB		1,776.00	26.10	22.71	46.60	1,058.29	2.85	575.00	1,683.75	2,697.04
Oklahoma	Gb, CE, SWw, SM, CLA		638.00	10.30	9.79	221.90	2,172.36	2.74	77.96	305.70	3,115.06
Texas	Gb, CE, SwCB, CB, ScBo, CR		6,196.00	10.17	9.56	1,632.46	15,606.50	2.42	3,367.54	8,147.04	59,142.65
						Subtotal	32,613.35			22,636.49	80,537.94
# Acreage treated more than once.											

Acreage treated more than once.

* Figure includes quality loss.

** Includes 15 percent loss due to inadequate controls on acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
SORGHUM (Forage)											
Oklahoma	Gb, CE, SWw, SM, CLA		275.00	Tons	6.66	95.65	637.00	2.74	33.61	305.70	942.70
						Subtotal	637.97			305.70	942.70
BARLEY											
Arizona	A, Aw, Cws, StB, M		176.00	Bu.	9.96*	50.00	398.00	5.00	100.00	500.00	998.00
North Dakota	T		2,626.00	2.50	1.90	200.00	380.00	2.00	30.00	60.00	920.00
Wyoming	Gh, Cws, EGA		102.00	1.15	1.05	1.71	1.80	2.00	0.55	1,100.00	2.90
						Subtotal	779.80			1,660.00	1,090.00
OATS											
Nebraska	Ww, EGA, WG, CB, L, Aws, Cws, Gh		483.00	1.06	0.71	27.50	19.53	2.50	2.50	6.25	25.78
South Dakota	Gh		2,357.00	2.25	1.31	5.50	720.00	2.50	12.00	30.00	37.24
Wisconsin	A		1,739.00	-	-	-	-	2.00	15.85	31.70	31.70
Wyoming	Gh, EGA		77.00	1.37	0.88	1.54	1.36	2.00	0.20	0.40	1.76
						Subtotal	740.88			68.35	96.47
WHEAT											
Arizona	Cws, DB, EGA, M, SMC		57.00	2.60	3.68*	15.00	51.45	4.00	20.00	80.00	135.20
Illinois	Aw		1,476.00	3.60	4.28	7.16	30.63	2.75	32.84	90.32	120.95
Kansas	Gh		9,751.00	1.00	1.25	208.00	260.00	2.00	57.00	114.00	374.00
	HF		"	0.25	0.31	1,400.00	434.00	-	-	-	-
	ACw, PWC		"	7.00	8.68	1,582.00	14,016.52	2.00	218.00	436.00	14,452.52
	Gb		"	1.50	1.86	675.00	1,255.50	2.50	175.00	437.50	1,693.00

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
WHEAT (Cont.)											
Nebraska		BWM, WG, WSM, Cws, HF, Gb, Gh, Ww, EGA, CB, WCM	3,159.00	Bu.							
				2.56	2.92	165.00	481.00	2.50	135.00	337.50	819.30
North Dakota		ACw, Ww, Gh WSM (Spring wheat)	7,903.00	2.20	3.03	200.00	606.00	2.00	200.00	400.00	1,006.00
			4,881.00	0.40	0.55	2,500.00	1,375.00	-	-	-	1,375.00
Oklahoma		Gb, BWM, Cws	5,321.00	5.52	6.90	1,284.49	8,862.98	2.19	524.65	1,148.98	10,011.97
South Dakota		Gb, Gh, WSM, HF	2,418.00	5.44	7.40	45.00	333.00	2.50	30.00	75.00	408.00
Texas		Gb, WGM, FA	3,825.00	3.30	4.16	286.36	1,191.25	2.26	1,243.64	2,810.63	4,001.88
Wyoming		Gh, PWC, ACw	290.00	2.41	2.43	16.01	38.90	2.00	19.80	39.60	78.50
						Subtotal	28,937.04			5,969.53	34,476.32
WHEAT, OATS, BARLEY											
Minnesota		A, Gb, CLA	4,957.00	-	-	-	-	2.25	12.00	27.00	27.00
						Subtotal				27.00	27.00
RICE											
Arkansas		RWW	572.00	-	-	-	-	1.00	457.60	475.60	475.60
						Subtotal				475.60	475.60
RANGE GRASS											
South Dakota		Gh	26,000.00	Tons							
				0.08	1.52	5.00	7.60	-	-	-	7.60
						Subtotal	7.60				7.60
ALFALFA (Hay)											
Arizona		AC, AWS, EAW, LB, M, A, SAA, TCAH, T	206.00	0.54	23.34*	140.00	1,867.60	5.00	40.00	200.00	4,867.60

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
ALFALFA (Hay)											
Illinois	ALW Gh Cws, Wbw, Ms, PA, PL		782.00	Tons							
				0.65	16.25	15.23	247.47	3.25	64.77	210.51	477.98
			0.48	12.00	7.34	88.04	3.25	17.63	57.40	145.45	
			"	0.48	12.00	3.24	38.93	3.25	9.76	31.71	70.64
Kansas	PA		1,148.00	1.50	35.25	261.00	9,200.25	3.00	89.00	267.00	9,467.25
Maryland	ALW, PA, MS, PL		68.00	0.63	25.32	8.00	202.56	6.00	50.00	300.00	502.56
North Dakota	Cws, Gh, ALW, PA		1,256.00	0.06	1.11	80.00	88.80	3.00	20.00	60.00	148.80
Oklahoma	SAA, PA, Cws, Gh, Wbw, TCAH		570.00	0.72	15.12	203.73	3,081.08	3.76	109.73	412.57	3,493.64
South Dakota	Gh, ALW, PA, FB		2,174.00	0.45	10.35	645.90	6,685.07	2.50	115.00	287.50	6,972.57
Virginia	ALW, MS, PA, PL		80.00	1.25	75.00*	3.00	150.00	6.60	65.00	429.00	654.00
Wyoming	ALW, ACw, Gh, PA		456.90	0.19	3.69	167.09	619.09	3.25	109.15	354.74	973.82
						Subtotal	22,268.88			2,610.42	27,774.30
ALFALFA (Seed)											
Arizona	AC, A, Cws, C, EAW, LB, StB, TCAH, T		15.00	Cwt.		5.00	51.55	8.00	10.00	80.00	156.55
Nebraska	W, Ww, BB, Wbw, C, PB, L, Gh, A, Cws		35.00	Lbs.	2.02	10.00	20.20	2.75	14.50	39.88	60.08
Wyoming	ALW, LB, PA, Gh		6.00	5.78	1.91	2.25	4.49	8.00	1.32	10.56	15.05
						Subtotal	76.24			130.44	231.67
ALFALFA (Grass)											
Minnesota	Gh, Cws, GCw		3.34	Tons	2.16	208.95	451.32	2.50	2.00	5.00	456.32
				0.12			451.32			5.00	456.32
CLOVER-TIMOTHY (Hay)											
Illinois	CLW		450.00	0.10	1.80	0.33	0.59	3.25	0.67	2.18	2.77

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)	
CLOVER-TIMOTHY (Hay) (cont.)										
Maryland	MS, A, PB, W		213.00	Tons						
				0.19	5.70	20.00	114.00	3.50	60.00	210.00
						Subtotal	114.59			212.18
										324.00
										326.77
HAY										
Nebraska	Gh, Wbw, SAA, PB, W, A, CoA, L, CW, AlW, AC, GW, CR, Aws, WG		4,292.00	0.11	2.31	364.82	842.73	2.65	64.38	170.61
Wisconsin	PL, MS, PA, PB, Cws		4,049.00	0.05	0.92	29.39	-	2.00	34.39	68.77
Alabama	FA, AlW, Gh, CW, A, CLA, WG, WFB, CE, TB, T, L		485.00	0.22	3.70	290.00	1,073.00	16.00	10.00	160.00
						Subtotal	1,915.73			399.38
										1,233.00
										2,315.11
SOYBEANS										
Alabama	TB, VbC, CL, StB, BLB, CE, LCB, MBB		557.00	Bu.						
				2.20	5.39	100.00	539.00	2.00	457.00	914.00
Arkansas	CE, StB		3,989.00	1.07	2.62	10.00	26.20	2.00	60.00	120.00
Illinois	Gh GCw		6,490.00	3.15	7.72	5.00	38.60	3.00	5.56	16.68
				-	-	2.87	22.15	3.00	92.13	276.39
										55.28
										298.54
Maryland	MBB, BLB, M, T, Wf, CE		209.00	1.25	3.00	5.00	15.00	5.00	10.00	50.00
Minnesota	GCW, BLB, TC		3,196.00	-	-	-	-	2.50	120.00	300.00
										65.00
										300.00
Nebraska	BLB, WG, MBB, Wbw, GCW, Gh, CR, Cws, Ww		820.00	0.46	1.10	28.00	30.80	3.00	12.00	36.00
										66.80
North Dakota	Gh		220.00	0.30	0.71	5.00	3.55	2.50	15.00	37.50
										41.05
Virginia	MBB, CE, M, GCW		383.00	1.80	5.00*	10.00	45.00	3.00	40.00	120.00
						Subtotal	720.30			1,870.57
										3,971.87

* Figure includes quality loss.

** Includes 6 percent loss due to inadequate controls on acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)	
PEANUTS										
Alabama		LCB, T, SCR, Cws, WFB, M, L, SI	182.00	Lbs.						
				405.00	47.38	18.00	852.84	3.25	164.00	533.00
Virginia		SCR, T, M, CE	102.00	575.00	86.50*	1.00	69.00	5.00	59.00	295.00
						Subtotal	921.84			828.00
COTTON										
Alabama		BW, Blw, TB, T, PB, F, A, M	525.00	111.00	33.12*	5.00	165.60	22.50	520.00	11,700.00
Arkansas		BW, Blw, M, PB	980.00	60.48	12.94	100.00	1,294.00	8.00	700.00	5,600.00
Arizona		Aws, F, ClP, Cws, LB, PBW, DB, SMC, M, StB, T, Wf	296.00	691.00	189.64*	6.00	1,131.84	15.00	290.00	4,350.00
Oklahoma		BW, Blw, F, T	385.00	77.70	16.32	141.37	2,306.46	9.07	66.53	603.41
Texas		A, SpM, T, F, TB, Blw, BW, Cws Gh, Aws	4,125.00	101.00	22.41	961.71	20,590.13	7.76	1,925.80	14,944.16
						Subtotal	25,488.02			37,197.57
TOBACCO										
Florida		TB, Cws, CL, TFB, Ww, GPA TH	4.00	80.00	196.00	-	784.00	69.00	4.00	276.00
			12.00	180.00	136.00*	-	1,488.00	12.00	12.00	144.00
Maryland		GPA, TFB, Tbw, TH	30.00	110.00	76.88	5.00	384.40	15.00	25.00	375.00
						Subtotal	2,656.40			795.00
SUGARBEETS										
Arizona		L, CL, FB, GPA, LB, StB, BB	17.01	2.00	28.00	12.00	336.00	4.00	2.00	8.00
Minnesota		BWw, Ww, BLM, Cws	163.00	-	-	-	-	4.00	0.80	3.20

* Figure includes quality loss.

** Includes 5 percent loss on peanuts and 10 percent loss on cotton due to inadequate controls on acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Sub-total (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)	
SUGARBEETS (Cont.)										
Nebraska	Wbw, L, Gh, Ww, FB, SpM		72.60	Tons						
				1.69	24.34	6.00	146.04	3.50	6.00	21.00
North Dakota	SBRM, Ww		87.50	5.50	82.50	5.00	762.75	3.75	55.00	206.25
				0.79	12.07	3.10	37.36	4.25	2.83	12.04
Wyoming	SBRM, L, BWw		62.10			Subtotal	519.40			44.24
SAFFLOWER										
Arizona	A, Aws, Cws, T, LB, M		9.00	Lbs.						
				132.50	4.64	4.00	18.56	2.00	5.00	10.00
						Subtotal	18.56			10.00
POTATOES										
Alabama	Ww, A, FB, PL, CPB, PT		16.50	-	-	-	-	6.00	16.50	99.00
Arizona	A, Aws, CL, DB, FB, L, PP, T		10.10	Cwt.	36.23	3.00	108.69	10.00	5.00	50.00
Minnesota	L, FB		94.40	14.70	0.29	2.00	0.58	8.00	90.00	720.00
Nebraska	CPB, L, PB, BB, FB, Ww, WG, Gh		9.50	28.08	40.72	1.00	40.72	6.20	4.50	27.90
North Dakota	PFB, Ww, PL, AL		108.00	5.80	7.54	5.00	37.70	8.00	75.00	600.00
Wisconsin	PL		54.00	154.00	366.00	4.00	1,464.00	12.00	50.00	600.00
Wyoming	PP, FB, CPB		3.80	7.12	11.39	0.02	0.28	6.50	3.58	23.27
					Subtotal		1,651.97			2,120.17
TOMATOES										
Alabama	TFw, FB, CL, SpM, WFB, LF		9.00	-	-	-	-	45.00	9.00	405.00
Maryland	FB, TFW, A, TH, CPB		1.50	Tons	102.00	-	-	10.00	1.50	15.00

* Includes loss to acres treated.

** Includes 6 percent loss on potatoes and 12 percent loss on tomatoes due to inadequate controls to acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)		
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)	
TOMATOES (Cont.)												
Illinois		Tomato pest complex	0.40	Cwt.	1.80	21.96	0.12	2.64	12.00	0.28	3.36	6.00
PEPPERS				Lbs.			Subtotal	2.64			423.36	1,009.20
Hawaii		GPA, M, PW	60.00		667.00	153.00	-	9.18	85.00	60.00	5.10	142.80
BEANS (Field)							Subtotal	9.18			5.10	142.80
Nebraska		WBC, MBB, Gh, BLB, L, A	76.00	Cwt.	2.34	15.91	20.00	318.20	3.50	30.00	105.00	423.20
Wyoming		MBB, FB	40.00		0.37	2.29	1.49	3.41	3.50	4.76	16.66	20.07
BEANS (Snap)							Subtotal	321.61			121.66	443.27
Wisconsin		PL, LB, Cws	41.20	Tons	0.66	54.40*	-	-	3.00	37.42	112.25	112.25
Alabama		MBB, CE, SpM, CR, T	1.45		-	-	-	-	13.00	1.45	18.85	49.95**
BEANS (Lima)							Subtotal				131.10	162.20
Wisconsin		PL, LB	8.30	Lbs.	630.00	51.00	-	-	3.00	8.30	24.90	24.90
Alabama		MBB, BLB, SpM, T, A, Wws, CR, LCB	3.20		-	-	-	-	4.50	3.20	14.40	101.98**
PEAS							Subtotal				39.30	126.88
Minnesota		PA, Cws	65.00		-	-	-	-	3.50	20.64	72.24	72.24
Wisconsin		PA, Cws	130.40		24.00	2.40*	-	-	2.00	24.94	49.88	49.88
							Subtotal				122.12	122.12

* Figure includes quality loss.

** Includes 10 percent on snap and lima beans due to inadequate controls on acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
CABBAGE											
Alabama		CL, DM, IC, Cws	0.70	-	-	-	-	25.00	0.70	17.50	54.88**
Arizona		A, CL, DM, Wbw	1.90	Cwt. 21.75	83.56*	0.40	32.62	15.00	1.50	22.50	55.92
Illinois		CL, CM	2.30	68.30	235.64	0.46	108.39	8.00	1.84	14.72	123.11
Wisconsin		CL, CM, IC	5.70	320.00	403.60*	-	-	25.00	5.70	142.50	142.50
					Subtotal		141.02			197.22	376.42
CAULIFLOWER											
Arizona		A, CL	0.65	-	-	-	-	25.00	0.65	16.25	16.25
					Subtotal					16.25	16.25
BROCCOLI											
Arizona		A, CL	0.65	12.00	150.00*	0.01	1.44	25.00	0.64	16.00	17.50
					Subtotal		1.44			16.00	17.50
CANTALOUPS											
Arizona		A, StCB, FB, L, M, T (Summer) (Spring)	1.00 11.60	-	214.40*	-	116.64	30.00 25.00	1.00 11.00	30.00 275.00	30.00 403.64
					Subtotal		116.64			305.00	433.64
CUCUMBERS											
Wisconsin		StCB	18.70	0.09	9.90	-	-	3.00	2.00	6.00	6.00
Illinois		StCB	0.85	3.25	12.20	0.43	7.31	6.00	0.43	2.55	9.86
					Subtotal		7.31			8.55	15.86
MELONS (Honeydews)											
Arizona		StCB, FB, L, M, T	0.75	5.25	45.48*	0.05	2.07	20.00	0.70	14.00	16.32
					Subtotal		2.07			14.00	16.32

* Figure includes quality loss.

** Includes 12 percent loss due to inadequate controls on acres treated.

Crop		State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Cost			Total Loss (\$1000)	
					Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
WATERMELONS												
Arizona	A, StCB, FB, L, M, T	4.00		Cwt.	8.50	30.93*	1.00	25.93	15.00	3.00	45.00	75.93
Illinois	Watermelon pest complex	1.70			4.00	10.20	0.68	6.94	6.00	1.02	6.12	13.01
							Subtotal	32.87			51.12	88.99
CARROTS												
Arizona	A, T	3.70			4.95	62.18*	1.70	54.71	10.00	2.00	20.00	125.71
Wisconsin	AL	2.80			80.00	149.00*	-	-	24.00	2.80	67.20	67.20
Hawaii	LMF, Cws, A	0.03			Lbs. 661.00	73.00	-	2.34	33.00	0.03	1.06	3.39
							Subtotal	57.04			88.26	196.30
LETTUCE												
Arizona	A, BA, CL, CE, LB, SMC, Cr	14.00 17.80 13.60			- - -	- - -	- - -	- - -	20.00 50.00 40.00	14.00 17.80 13.60	280.00 890.00 544.00	280.00 890.00 544.00
Wisconsin	AL	1.70			Cwt. 105.00	556.00	-	-	25.00	1.70	42.50	42.50
							Subtotal				1,756.50	1,756.50
ONIONS												
Arizona	BA, T, CL	3.10			16.00	63.76*	1.00	53.76	20.00	1.50	30.00	93.76
Illinois	OM, OT	0.50			3.30	10.73	0.05	0.54	7.00	0.45	3.15	3.69
Wisconsin	AL, OM	1.80			0.50	167.00	-	-	24.00	1.80	43.20	43.20
							Subtotal	54.30			76.35	140.65

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)		
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Sub-total (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Sub-total (\$1000)	
SWEETPOTATO												
Alabama		Ww, FB, SpW, WG, WFB	5.20	Cwt.	7.65	52.84*	2.20	94.25	8.00	3.00	24.00	1,402.48
Hawaii		SVB, SpW, SHw, Tsm	0.04	Lbs.	1,226.00	123.00	-	4.31	14.00	0.04	0.49	4.80
							Subtotal	98.55			24.49	1,407.28
APPLES												
Arkansas		CdM, M, PC, RAA, LR	1.80	-	-	-	-	-	55.00	1.80	99.00	99.00
Maryland		CdM, PC, A, SpM	Bu. 1,250.00	-	-	-	-	-	0.40	-	50.00	50.00
Minnesota		AM, CdM, PC, M	2.00	-	-	-	-	-	0.13	2.00	250.00	250.00
Virginia		CdM, A, M, LR	9,477.00	-	-	-	-	-	0.02	-	1,705.86	1,705.86
Wisconsin		AM, CdM, M	-	200.00	572.00	-	-	-	110.00	-	790.24	790.24
							Subtotal				2,895.10	2,895.10
PEACHES												
Alabama		PC, PTB, LPTB, Sc, SpM, OFM	Lbs. 39,000.00	-	-	-	-	-	24.00	650.00	195.00	399.36**
Arkansas		OFM, StB, PTB, PC, Sc	4.50	-	12.00*	-	-	-	40.00	4.50	180.00	234.00
Florida		Sc, PC, LPTB, PTB, StB, CFF, PB	5.64	-	-	-	-	-	45.00	5.64	253.80	253.80
							Subtotal				628.80	676.56
GRAPEFRUIT												
Arizona		A, LFB, K, OD, L, M, Sc, T, LR, Gh, C	6.69	Boxes	25.00	60.00*	0.69	41.16	4.00	6.00	24.00	65.16
							Subtotal	41.16			24.00	65.16

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* Figure includes quality loss.

** Includes 8 percent loss due to inadequate controls on acres treated.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)	
LEMONS										
Arizona		A, C, Gh, K, L, M, LR, OD, T, Sc	7.94	Boxes						
				31.50	140.00*	0.44	61.47*	15.00	7.50	112.50
						Subtotal	61.47			112.50
ORANGES										
Arizona		A, C, LMF, Gh, K, L, M, LR, OD, T, Sc	24.19							
				65.25	213.00*	0.69	112.07	15.00	23.50	352.50
						Subtotal	112.07			352.50
TANGERINES										
Arizona		A, C, Gh, K, L, M, LR, OD, T	3.30							
				40.00	200.00*	0.30	53.46	8.00	3.00	24.00
						Subtotal	53.46			24.00
GINGER										
Hawaii		CRB, GM	0.02							
				1.51	391.00	-	7.43	25.00	0.02	0.48
						Subtotal	7.43			0.48
WATERCRESS										
Hawaii		M, DM, GPA	0.24							
				232.00	35.00	-	8.40	36.00	0.24	8.64
						Subtotal	8.40			8.64
SUNFLOWERS										
North Dakota		SuM, SfM, SfB	87.00							
				5.80	0.25	64.00	16.00	-	-	-
						Subtotal	16.00			16.00

* Figure includes quality loss.

Crop	State	Pest Complex	Total Acres Produced (1000)	Yield Loss			Control Loss			Total Loss (\$1000)	
				Loss Per Acre (Units)	Loss Per Acre (dollars)	Non-treated Acres (1000)	Subtotal (\$1000)	Cost Per Acre (dollars)	Treated Acres (1000)		Subtotal (\$1000)
PECANS			Trees	Lbs.		Trees		Trees	Trees		
Florida		PnC, HS, A, W	220.00	14.00	5.30*	140.00	725.20	4.00	60.00	240.00	982.00
Alabama		PnC, HS, A, LR, SpM, StB, W, Sc	925.00	5.84	4.74*	775.00	1,836.75	9.00	150.00	1,350.00	5,023.50
						Subtotal	2,561.95			1,590.00	6,005.50
						Total	155,706.61			134,988.09	344,567.96

* Figure includes quality loss.

Legend

A	- Aphids	Gb	- Greenbug	Sc	- Scales
AC	- Alfalfa Caterpillar	GCw	- Green Cloverworm	SCB	- Seed-corn Beetle
ACw	- Army Cutworm	Gh	- Grasshoppers	ScBo	- Sugarcane Borer
AL	- Aster Leafhopper	GM	- Ginger Maggots	SCM	- Seed-corn Maggot
ALw	- Alfalfa Weevil	GPA	- Green Peach Aphid	SCR	- Southern Corn Rootworm
AM	- Apple Maggot	GW	- Garden Webworm	SfB	- Sunflower Beetle
Aw	- Armyworm	HF	- Hessian Fly	SfM	- Sunflower Maggots
Aws	- Armyworms	HS	- Hickory Shuckworm	SHW	- Sweetpotato Hornworm
BA	- Beet Armyworm	IC	- Imported Cabbageworm	SI	- Soil Insects
BB	- Blister Beetles	K	- Katydid	SM	- Sorghum Midge
BLB	- Bean Leaf Beetle	L	- Leafhoppers	SMC	- Salt-marsh Caterpillar
BLM	- Beet Leaf Miner	LB	- Lygus Bugs	SPM	- Spider Mites
Blw	- Bollworm	LCB	- Lesser Cornstalk Borer	SPW	- Sweetpotato Weevil
BW	- Boll Weevil	LFB	- Leaf-footed Bug	StB	- Stink Bugs
BWM	- Brown Wheat Mite	LMF	- Leaf Miner Flies	StCB	- Striped Cucumber Beetle
BWw	- Beet Webworm	LPTB	- Lesser Peach Tree Borer	Sub	- Sugarcane Beetle
C	- Chalcids	LR	- Leaf Rollers	SuM	- Sunflower Moth
CdM	- Codling Moth	M	- Mites	SVB	- Squash Vine Borer
CFB	- Corn Flea Beetle	MB	- Maize Billbug	SW	- Sod Webworms
CFF	- Caribbean Fruit Fly	MBB	- Mexican Bean Beetle	SwCB	- Southwestern Corn Borer
Cic	- Cicadas	MS	- Meadow Spittlebug	SWw	- Sorghum Webworm
CL	- Cabbage Looper	OD	- Orange-dog	T	- Thrips
CLA	- Corn Leaf Aphid	OFM	- Oriental Fruit Moth	TB	- Tobacco Budworm
CLP	- Cotton Leaf Perforator	OM	- Onion Maggot	TC	- Thistle Caterpillar
CLW	- Clover Leaf Weevil	OT	- Onion Thrips	TCAH	- Three-cornered alfalfa hopper
CoA	- Clover Aphid	PA	- Pea Aphid	TFB	- Tobacco Flea Beetle
CP	- Corn Planthopper	PB	- Plant Bugs	TFw	- Tomato Fruitworm
CPB	- Colorado Potato Beetle	PL	- Potato Leafhopper	TH	- Tomato Hornworm
Cr	- Crickets	PP	- Potato Psyllid	Tsm	- Tumid Spider Mite
CR	- Corn Rootworms	PNC	- Pecan Nut Casebearer	TSM	- Two-spotted Spider Mite
CRB	- Chinese Rose Beetle	PT	- Potato Tuberworm	VbC	- Velvetbean Caterpillar
Cws	- Cutworms	PTB	- Peach Tree Borer	W	- Weevils
DB	- Darkling Beetles	PW	- Pepper Weevil	WBC	- Western Bean Cutworm
DM	- Diamondback Moth	PWC	- Pale Western Cutworm	Wbw	- Webworms
EAW	- Egyptian Alfalfa Weevil	RA	- Root Aphids	Wf	- Whitefly
ECB	- European Corn Borer	RAA	- Rosy Apple Aphid	WFB	- White-fringed Beetles
EGA	- English Grain Aphid	RWW	- Rice Water Weevil	WG	- White Grubs
F	- Fleahoppers	S	- Slugs	WSM	- Wheat Stem Maggot
FA	- Fall Armyworm	SAA	- Spotted Alfalfa Aphid	Ww	- Wireworms
FB	- Flea Beetles	SB	- Stalk Borer		
		SBRM	- Sugarbeet Root Maggot		

WEATHER OF THE WEEK ENDING DECEMBER 8

HIGHLIGHTS: Winter continued in the East. It was the coldest week of the season in New York and the 8th consecutive cold week in Pennsylvania. Heavy snow fell in parts of the central Great Plains, the Great Lakes region, and the Northeast.

PRECIPITATION: Fair skies prevailed over most of the Nation early in the week but midweek brought precipitation to about half of the States. Light rains fell almost daily along the northern Pacific coast and in the nearby mountains snow accumulated to 10 to 30 inches above 3,000 feet. Light widely scattered showers occurred over much of the western half of the Nation but the weekly totals generally did not exceed 0.25 inch. Wet snow fell above 5,000 feet in the mountains in southern California and several inches fell east of Albuquerque, New Mexico, on Thursday. Light snow fell in the northern and central Rocky Mountains and western Great Plains at midweek with locally heavy accumulations of up to 7 inches in northeastern Kansas and to 9 inches in northern Missouri. New York received 2 to 8 inches of snow early in the week and up to 6 inches fell in western Connecticut. Geauga County, Ohio, received 12 inches of snow on Wednesday and a major storm dumped 6 to 12 inches on parts of Wisconsin and Michigan on Sunday. Much of the Northeast received snow, sleet, freezing rain, or rain over the weekend. On Monday night, December 8, Duluth, Minnesota, measured 21 inches of snow on the ground and it was still falling.

TEMPERATURE: Mild clear temperatures prevailed over the Great Plains early in the week. Temperatures reached the 50's and 60's in Montana and North Dakota on Monday, December 1. Cold weather lingered in the East. Frost occurred in northern and central Florida on several days early in the week and at interior localities in southern Florida on the 1st. At midweek, cold arctic air moved into the northern Great Plains. Temperatures plunged to below zero in northern Minnesota, on Thursday morning. By Friday, much of the Nation was in the grip of the cold air and on Saturday afternoon, temperatures remained in the 40's and 50's in New Mexico and in all of Texas except the extreme south. Subzero weather occurred in the northern and central Rockies on Monday morning, December 8, when Alamosa, Colorado, registered -8° . Southerly breezes brought some warming in the Deep South on Sunday when afternoon temperatures reached the 50's as far north as the Ohio River. Temperatures averaged below normal in the Far Northwest and from eastern New Mexico to the Atlantic Ocean and northeastward to New England. Above-normal temperatures predominated from Arizona to Lakes Superior and Michigan. Parts of the northern Great Plains averaged 6 to 10° above normal in spite of the extreme cold weather there. (Summary supplied by Environmental Data Service, ESSA.)

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